

1           1.     A therapeutic element comprising:  
2                 an elongate solid member;  
3                 radioactive seed elements;  
4                 said radioactive seed elements dispersed within said elongate solid member.

1           2.     The therapeutic element set forth in claim 1 wherein said elongate solid member is axially rigid  
2     and radially flexible.

1           3.     The therapeutic element set forth in claim 1 wherein said elongate solid member is sufficiently  
2     axially rigid to prevent jamming or collapsing while being pushed out of a needle.

1           4.     The therapeutic element set forth in claim 1 wherein said elongate solid member has sufficient  
2     radial flexibility to maintain locational accuracy relative to a tumor target as said tumor target shrinks in size.

1           5.     The therapeutic element set forth in claim 1 wherein the thickness of said elongate solid  
2     member around said radioactive seeds is sufficient to decrease normal tissue necrosis from a high local dose  
3     of radiation.

1           6.     The therapeutic element set forth in claim 1 wherein said elongate solid member is longitudinally  
2     flexible.

1           7.     The therapeutic element set forth in claim 1 wherein said elongate solid member is impregnated  
2     with a hormone.

1           8.     The therapeutic element set forth in claim 1 wherein said elongate solid member is impregnated  
2     with a drug.

1           9.     The therapeutic element set forth in claim 1 wherein said radioactive seed elements are  
2     positioned at various intervals along the length of said elongate solid member.

1           10.    The therapeutic element set forth in claim 1 wherein said radioactive seed elements contain  
2     a hormone.

1           11.    The therapeutic element set forth in claim 1 wherein said radioactive seed elements contain  
2     a drug.

1           12.    The therapeutic element set forth in claim 1 wherein said radioactive seeds contain a compound  
2     or element that emits photonic radiation having a low energy and a short half-life.

1           13.    The therapeutic element set forth in claim 1 wherein said radioactive seeds contain an isotope  
2     consisting of the group iodine 125, palladium 103, iridium 192, cesium 131, gold 198 yttrium 90 and  
3     phosphorus 32.

1           14.    The therapeutic element set forth in claim 1 wherein said elongate member is composed of a  
2     bio-absorbable material.

1           15.     The therapeutic element set forth in claim 1 wherein said elongate member is composed of a  
2     bio-absorbable material absorbed by living tissue within about 70 to 120 days.

1           16.     (Once Amended)     The therapeutic element set forth in claim 1 wherein said elongate  
2     member is composed of a bio-absorbable material is selected from the group consisting of polymers and  
3     copolymers of glycolide, lactide and polydiaxanone.

1           17.     The therapeutic element set forth in claim 1 wherein said elongate solid member is echogenic.

1           18.     The therapeutic element set forth in claim 1 wherein said elongate solid member has air  
2     bubbles.

1           19.     The therapeutic element set forth in claim 1 wherein said elongate solid member is laterally  
2     flexible.

1           20.     A therapeutic element comprising:  
2                   an elongate, axially rigid and radially flexible member;  
3                   radioactive seed elements;  
4                   said radioactive seed elements dispersed within said elongate member.

1           21.     The therapeutic element set forth in claim 20 wherein said axially rigid and radially flexible  
2     member is continuous.

1           22.    A therapeutic element comprising:

2                    an elongate axially rigid and radially flexible member;

3                    radioactive seed elements;

4                    hormone impregnated seed elements;

5                    said radioactive seed elements and said hormone impregnated seed elements dispersed within

6                    said elongate axially rigid and radially flexible member.

1           23.    The therapeutic element set forth in claim 22 wherein said axially rigid and radially flexible

2                    member is continuous.

1           24.    A therapeutic element comprising:

2                    an elongate axially rigid and radially flexible member;

3                    radioactive seed elements;

4                    drug impregnated seed elements;

5                    said radioactive seed elements and said drug impregnated seed elements dispersed within said

6                    elongate axially rigid and radially flexible member.

1           25.    The therapeutic element set forth in claim 24 wherein said axially rigid and radially flexible

2                    member is continuous.

1           26.    A therapeutic element comprising;

2                    an elongate, axially rigid and radially flexible member;

3                    one of a hormone and a drug;

1 said one of hormone and said drug implanted in the elongate axially rigid and radially flexible  
2 member.

1 27. (Once Amended) The therapeutic element set forth in claim 26 wherein said one of a  
2 hormone and a drug is dispersed along the length of said elongate, axially rigid and radially flexible member.

1 28. A therapeutic element comprising:  
2 an elongate axially rigid member;  
3 said elongate axially rigid member not having sufficient rigidity to be driven into a tumor without  
4 deflection;  
5 radioactive seed elements;  
said radioactive seed elements dispersed within said elongate solid member.

1 29. A brachytherapy device comprising:  
2 a therapeutic element, including an elongate, axially rigid and radially flexible member;  
3 a needle with a lumen;  
4 a plug in the end of said needle;  
5 wherein said therapeutic element is positioned inside said lumen of said needle.

1 30. The brachytherapy device set forth in claim 29 wherein said elongate, axially rigid and radially  
2 flexible member is continuous.

1 31. The brachytherapy device set forth in claim 29 wherein said elongate solid member is a close  
2 fit to the needle lumen.

1           32.     The brachytherapy device set forth in claim 29 wherein the fit between said elongate solid  
2 member and said needle prevents collapse of said therapeutic element as said therapeutic element is passed  
3 through said needle.

1           33.     The brachytherapy device set forth in claim 29 wherein said plug is bio-compatible.

1           34.     A method for making a therapeutic element comprising, in any order:  
2                 dispersing radioactive seed elements within a molding cavity; and  
3                 filling the molding cavity with a bio-absorbable polymer;

1           35.     The method for making a therapeutic element set forth in claim 34 wherein said molding cavity  
2 is shaped to the desired final dimensions of said therapeutic element.

1           36.     The method for making a therapeutic element set forth in claim 34 wherein said molding cavity  
2 spaces said radioactive seeds at appropriate intervals.

1           37.     The method for making a therapeutic element set forth in claim 34 wherein said polymer is  
2 introduced into said mold at a temperature greater than the melt point of said polymer.

1           38.     The method for making a therapeutic element set forth in claim 34 wherein said polymer  
2 surrounds said radioactive seeds.

1           39.     The method for making a therapeutic element set forth in claim 34 wherein said polymer fills  
2     the spaces between said seeds.

1           40.     The method for making a therapeutic element set forth in claim 34 wherein said bio-absorbable  
2     polymer is impregnated with a hormone.

1           41.     The method for making a therapeutic element set forth in claim 34 wherein said bio-absorbable  
2     polymer is impregnated with a drug.

1           42.     A method of brachytherapy comprising:  
2                   loading a needle with a therapeutic device;  
3                   inserting said needle into the therapeutic site into the most distal location from the insertion  
4     point;  
5                   inserting a stylet into said needle;  
6                   gradually pulling on said needle while maintaining the stylet stationary relative to the axial  
7     movement of said needle;  
8                   and dispensing said therapeutic device.

1           43.     The method of brachytherapy set forth in claim 42 wherein the overall diameter of said  
2     therapeutic element is sufficient to prevent collapse within the needle lumen.

1           44.     The method of claim 43 wherein said therapeutic device is an elongated solid member having  
2     spaced radioactive seeds.

1           45.     The method of claim 43 wherein said therapeutic device is an elongated axially rigid and radially  
2 flexible member having spaced apart radioactive seeds.

1           46.     The method of claim 43 wherein said therapeutic device is an elongated member formed of a  
2 bio-absorbable material into which are positioned a plurality of spaced apart radioactive seeds.

1           47.     The method of claim 43 wherein said therapeutic device is an elongated member is comprised  
2 of a plurality of spaced apart radioactive seeds which are encapsulated in a bio-absorbable material.

1           48.     The method of claim 47 wherein said bio-absorbable material is a polymer.

1           49.     (Once Amended)     The therapeutic element of claim 1 wherein said member has a  
2 durometer in the range of about 20 to about 80.

1           50.     (Once Amended)     The therapeutic element of claim 1 wherein said member has a  
2 durometer in the range of about 20 to about 40.

1           51.     (Once Amended)     The therapeutic element of claim 20 wherein said member has a  
2 durometer in the range of about 20 to about 80.

1           52.     (Once Amended)     The therapeutic element of claim 20 wherein said member has a  
2 durometer in the range of about 20 to about 40.



1           53.   (Once Amended)    The therapeutic element of claim 28 wherein said member has a  
2   durometer in the range of about 20 to about 80.

1           54.   (Once Amended)    The therapeutic element of claim 28 wherein said member has a  
2   durometer in the range of about 20 to about 40.

1           55.   (Once Amended)    A prescription method of treating tissue comprising the steps of:  
2                   first creating a tissue treatment plan for the tissue to be treated, which treatment plan specifies  
3   a number and spacing of treatment seeds to be provided in a strand; and  
4                   second creating a treatment strand by molding treatment seeds in a material.

1           56.   The method of claim 55 wherein:  
2                   said first creating step is performed by a person treating a patient; and  
3                   said second creating step is performed by an entity that fills prescriptions by forming the strand,  
4   which entity fills prescriptions from a plurality of patients.

1           57.   (Once Amended)    The method of claim 55 wherein:  
2                   wherein said first creating step specifies radioactive seeds and optimal spacings between each  
3   pair of seeds; and  
4                   wherein said second creating step creates strands to the specified optimal spacings prescribed.

1           58.     The method of claim 57 wherein:  
2                   said second creating step is performed positioning radioactive seeds in a mold at the optimal  
3 spaces and pouring in a material to mold the radioactive seeds in place.

1           59.     The method of claim 58 wherein:  
2                   said material that is poured is a bio-absorbable material.

1           60.     The method of claim 59 wherein:  
2                   said material that is poured in is a polymer material.

1           61.     (Once Amended)     The method of claim 55 wherein:  
2                   said first creating step uses an imaging device to create a treatment plan.

1           62.     The method of claim 55 including:  
2                   receiving said treatment strand and implanting the treatment strand adjacent to the tissue to be  
3 treated.

1           63.     The method of claim 55 including the step of using heated treatment seeds.

1           64.     The method of claim 42 including the step of using heated treatment seeds.

1           65.     The therapeutic element set forth in claim 1 wherein said elongated member is composed of  
2 a bio-absorbable material which is absorbed when the half-life of the radioactive seed elements is reached.

1           66.     The therapeutic element set forth in claim 20 wherein said elongated member is composed of  
2     a bio-absorbable material that is absorbed when the half-life of the radioactive seed elements is reached.

1           67.     The therapeutic element set forth in claim 28 wherein said elongated member is composed of  
2     a bio-absorbable material that is absorbed when the half-life of the radioactive seed elements is reached.

1           68.     The therapeutic element of claim 1 wherein said therapeutic element is steam sterilizable.

1           69.     The therapeutic element of claim 20 wherein said therapeutic element is steam sterilizable.

1           70.     The therapeutic element of claim 22 wherein said therapeutic element is steam sterilizable.

1           71.     The therapeutic element of claim 24 wherein said therapeutic element is steam sterilizable.

1           72.     The method of claim 42 wherein the therapeutic device is steam sterilized prior to usage.

1           73.     The therapeutic element of claim 1 wherein the radioactive seed element is bio-absorbable.

1           74.     The therapeutic element of claim 20 wherein the radioactive seed element is bio-absorbable.

1           75.     The therapeutic element of claim 1 wherein the radioactive seed element also contains a drug  
2     and wherein the seed element is bio-absorbable.

1           76.     The therapeutic element of claim 20 wherein the radioactive seed element also contains a drug  
2     and wherein the seed element is bio-absorbable.

1           77.     The therapeutic element of claim 26 wherein said one of said hormone and said drug is  
2     encapsulated in a biodegradable seed.

1           78.     The therapeutic element of claim 26 wherein said one of said hormone and said drug is  
2     encapsulated in a biodegradable seed along with radioactive elements.

1           79.     (New) A prescription method of treating tissue comprising the steps of:  
2                   first accepting a tissue treatment plan for the tissue to be treated, which treatment plan specifies  
3     the spacing of treatment seeds to be provided in a strand; and  
4                   second, creating a treatment strand during which second step the spacing between treatment  
5     seeds can be independently set.

1           80.     (New) The method of claim 79 wherein said creating step creates a treatment strand by molding  
2     treatment seeds in a material.

1           81.     (New) The method of claim 79 wherein said treatment plan specifies the treatment seed type.

1           82.     (New) The method of claim 79 wherein said creating step creates a strand to the optimal  
2     spacing prescribed in the treatment plan.

1           83.     (New) The method of claim 79 wherein said accepting step accepts a treatment plan created  
2     using an imaging device to image the tissue for which the treatment plan is prescribed.

1           84.     (New) The method of claim 79 wherein the first accepting step accepts a tissue treatment plan  
2     created by a computer program.

1           85.     (New) A prescription method of treating tissue comprising the steps of:  
2                 first accepting a tissue treatment plan for the tissue to be treated, which treatment plan specifies  
3     a number and spacing of treatment seeds to be provided in a strand; and  
4                 second creating a treatment strand by molding treatment seeds in a material.

1           86.     (New) The method of claim 85 wherein:  
2                 said first accepting step accepts a tissue treatment plan created by a computer program.

1           87.     (New) The method of claim 85 wherein:  
2                 wherein said first accepting step accepts a treatment plan that specifies radioactive seeds and  
3     optimal spacings between each pair of seeds; and  
4                 wherein said second creating step creates strands to the specified optimal spacings prescribed.

1           88.   (New) The method of claim 87 wherein:  
2                   said second creating step is performed positioning radioactive seeds in a mold at the optimal  
3 spaces and pouring in a material to mold the radioactive seeds in place.

1           89.   (New) The method of claim 88 wherein:  
2                   said material that is poured is a bio-absorbable material.

1           90.   (New) The method of claim 89 wherein:  
2                   said material that is poured in is a polymer material.

1           91.   (New) The method of claim 85 wherein:  
2                   said first accepting step uses a tissue treatment plan created using an imaging device.